| Code | Product of | Anomeric Description | FDT (°C) | Solubility of structurant at 25°C |
|---|---|---|---|---|
| REF2 | | nonanoyl, 88% α | 47 | Benchmark. Some dissolution of structurant clearly seen in DSC |
| REF3 | | nonanoyl, 99% β | 47 | Slightly less soluble than benchmark. Some dissolution of structurant seen in DSC |
| Ex 5.1 | Ex 1.1 | benzoyl, 98% β | 64 | Less soluble. No dissolution of fibres seen in DSC |
| Ex 5.2 | Ex 1.2 | benzoyl, 96% α | 67 | Less soluble. No dissolution of fibres seen in DSC |
| Ex 5.3 | Ex 1.3 | naphthoyl, 99% β | 63 | Less soluble. No dissolution of fibres seen in DSC |
| Ex 5.4 | Ex 1.5 | ethanoyl, 33% α | 50 | Less soluble. No dissolution of fibres seen in DSC |
| Ex 5.5 | Ex 1.6 | ethanoyl, 62% α | 70 | Less soluble. No dissolution of fibres seen in DSC |
| Ex 5.6 | Ex 1.7 | ethanoyl, 92% α | 72 | Less soluble. No dissolution of fibres seen in DSC |
| Ex 5.7 | Ex 1.10 | cyclohexanoyl, 97% β | 53 | Less soluble. No dissolution of fibres seen in DSC |

From Table 6, two deductions can be made. First, the fibre dissolution temperature of the structurants according to the instant invention are higher than the reference structurants, indicating that the thermal stability

(stability to melting) of a gel obtained using that invention structurant is higher.

Secondly, the solubility of the invention structurants at 25°C tends to be lower than that of the reference structurants. The inventors have found such lower solubility indicates that the resistance of the structurant to crystallisation during storage of gels is improved.

DSC Method

Samples of gel (about 20 mg) were sealed in stainless steel capsules for DSC. An empty stainless steel capsule was used as the physical reference. The samples were subjected to the following temperature programme:

The sample was heated to 100°C and held at 100°C for 1 minute, in order to obtain an isotropic solution. The sample was then cooled at 5 K/min to -20°C. The sample was held at -20°C for 1 minute. The sample is now a gel on the bottom of the sample capsule prepared in a reproducible manner. The gel was then heated at 5 K/min to 100°C. Data was also obtained with empty stainless steel pans as both physical sample and reference. This blank data was later subtracted from the sample data to remove any curvature in the base line.

Example 6

Stability Testing

Gels were made up using 10% structurant in a 60:40 mixture of Hydrogenated Polyisobutene (Panalene L14E):DC245. The gels, in sealed glass bottles, were left to stand for 18hrs at room temperature, after which they were transferred to an oven thermostatically controlled to 37°C. Samples were checked periodically for signs of crystal growth visible by eye. REF1 is cellobiose octanonanoate. The results are summarised in Table 7 below.